

REMARKS

The Office Action mailed September 10, 2007 has been carefully considered.

Reconsideration in view of the following remarks is respectfully requested.

Claim Status and Amendment to the Claims

Claims 1-3, 6-10, 12-33, 36-40, 42-43, 45-46, and 48-76 are now pending.

No claims stand allowed.

Claims 13-30 have been withdrawn from consideration as the result of an earlier restriction requirement.

The Applicants gratefully acknowledge indication of allowability of claims 1-3, 6-10, 12-33, 36-40, 42-43, 45-46, and 48-76 over the cited art of record, subject to the 35 U.S.C. §112 issues outlined in the Office Action.¹

Claims 1-2, 31-32, 36, 43, 45-46, 48-56, 58-59, and 61-76 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention. The amendments include replacing all occurrences of “said” to “the.” Support for these changes may be found in the specification, figures, and claims as originally filed.

The independent claims have also been amended to replace “creating a master list” with “compiling a master list.” The Support for these changes may be found in the specification, figures, and claims as originally filed, including the specification at p. 14 ll. 15-17. The text of claims 3, 7-12, 33, 37-42, 50-54, 57, and 60 is unchanged, but their meaning is changed because they depend from amended claims.

Claims 4-5, 34-35, 44, and 47 were previously cancelled, without prejudice or disclaimer of the subject matter contained therein.

In view of the Examiner's earlier restriction requirement, the Applicants retain the right to present claims 13-30 in a divisional Application.

Record of Interview

On December 4, 2007, an interview was conducted by telephone between Examiner Strange and the undersigned. The Applicants thank the Examiner for granting this interview. The details of the interview are set forth in the Interview Summary document made of record.

The 35 U.S.C. § 112, First Paragraph Rejection

Claims 1-3, 6-10, 12-33, 36-40, 42, 43, 45, 46, and 48-64 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was allegedly not in compliance with the written description requirement. The claims were said to contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This objection is respectfully traversed.

Claim 1

Claim 1 as presently amended recites:

A universal serial bus (USB) remote host control driver, comprising:
a port for connecting to a network, the remote host control driver configured to communicate with one or more USB device adapters via the port over the network, each of the one or more USB device adapters having a discrete network address;
a network protocol stack, the protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets;
a polling routine configured to poll each of possible USB device adapters connected to the network in accordance with a candidate list, and compile a master list of only the USB device adapters which responded to the polling;
and

¹ Office Action dated September 10, 2007, ¶ 3.

a memory for storing the master list, the master list containing the discrete network address of each of the one or more USB device adapters and an address(es) and a corresponding identifier of each USB device connected via the corresponding USB device adapter to the remote host control driver.

The Examiner states:

... the limitation "create a master list of only the USB device adapters which responded to the polling" is not described in the specification. The specification merely describes "adding" identifiers to a master list if they respond to a polling (Specification, 12). This is different from and fails to provide support for "creating" a list containing only those identifiers. There is simply no language in the specification which actively precludes the master list from containing additional identifiers.²

The Applicants respectfully disagree for the reasons set forth below.

With respect to the Examiner's contention that there is no support in the Specification for "creating" a master list containing of only the USB device adapters which responded to the polling, the Examiner is referred to the Specification as filed, which recites in part:

Once the master list is *compiled*, the routine may determine whether the operating system (OS) of the computer supports automatic insertion of USB devices 180.³

With this Amendment, the independent claims have been amended to replace "creating a master list" with "compiling a master list."

With respect to the Examiner's contention that there is no support in the Specification for the master list having *only* the USB device adapters which responded to the polling, the Examiner is referred to the application as filed, for example FIG. 3 and the corresponding text. In FIG. 3, both candidate list 74 and master list 78 are shown within polling routine 72.

² Office Action at ¶ 6.

³ Specification at p. 14 ll. 15-17. (emphasis added)

Candidate list 74 *contains* possible addresses of USB device adapters. The Specification recites in part:

The USB remote host control driver 60 includes a polling routine 72 for identifying and enabling USB devices onto the network 68. The polling routine 72 uses a candidate list 74 containing possible addresses of USB device adapters 76 to search the network for USB device adapters and USB devices. Once the devices are found, the addresses of networked USB device adapters 80 and USB devices 81 are incorporated into a master list 78.⁴

The Specification also recites in part:

The polling routine polls an address on the candidate list 132. This polling includes encapsulating a USB packet in one ore more network packets. If a USB device adapter is present at the address, the polling routine receives a positive response from the USB device adapter 134. The process includes decapsulating a USB packet from one ore more network packets. *Once the positive response is recognized*, the address and a USB device adapter identifier is added to a master list of USB device adapters on the network 136.⁵

Merriam-Webster's Online Dictionary defines the term "compile" as "to compose out of materials from other documents." The "materials from other documents" from which the master list is "composed" in the present case is clearly the USB device adapters in candidate list 74 for which polling routine 72 received a positive response. And since the starting point is the candidate list 74 which *contains* the *possible* addresses of USB device adapters, the USB adapters identified in the master list of Claim 1 are *only* those that were both identified in the candidate list and which responded positively to the polling. For the above reasons, the Applicants respectfully request the 25 U.S.C. § 112, first paragraph rejection of Claim 1 be withdrawn.

⁴ Specification at p. 10 ll. 7-13.

⁵ Specification at p. 12 ll. 14-21. (emphasis added) See also Specification at p. 14 ll. 1-17, and p. 19 ll. 5-19.

Claims 31, 43, 45, 46, 55, 58, 61, and 63

Independent claims 31, 43, 45, 46, 55, 58, 61, and 63 as presently amended include limitations substantially similar to those addressed with respect to Claim 1. Thus, the arguments made with respect to Claim 1 apply to Claims 31, 43, 45, 46, 55, 58, 61, and 63 as well. Claim 1 being allowable, Claims 31, 43, 45, 46, 55, 58, 61, and 63 must also be allowable for at least the same reasons as Claim 1.

The 35 U.S.C. § 102 Rejection

Claims 1-3, 31-33, 43, 46, 51, 53 and 55-64 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Ben-Dor et al.^{6 7} This rejection is respectfully traversed.

According to the M.P.E.P., a claim is anticipated under 35 U.S.C. § 102(a), (b) and (e) only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.⁸

Claim 1

Claim 1 as amended recites:

A universal serial bus (USB) remote host control driver, comprising:
a port for connecting to a network, the remote host control driver configured to communicate with one or more USB device adapters via the port over the network, each of the one or more USB device adapters having a discrete network address;
a network protocol stack, the protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets;
a polling routine configured to poll each of possible USB device adapters connected to the network in accordance with a candidate list, and compile a master list of only the USB device adapters which responded to the polling;
and

⁶ U.S. Publication No. 2002/0141418 to Ben-Dor et al.

⁷ Office Action at ¶ 10.

⁸ Manual of Patent Examining Procedure (MPEP) § 2131. See also *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

a memory for storing the master list, the master list containing the discrete network address of each of the one or more USB device adapters and an address(es) and a corresponding identifier of each USB device connected via the corresponding USB device adapter to the remote host control driver.

The Examiner states:

... Ben-Dor discloses a USB remote host control driver (fig. 1 C, 204, and paragraph 46), comprising:

- a port for connecting to a network (201), said remote host control driver configured to communicate with one or more USB device adapters (RPS 205) via said port over the network, each of said one or more USB device adapters (205) having a discrete network address (IP address)(Fig. 1c and ¶41-42);
- a network protocol stack, said protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets (¶71);
- a polling routing configured to poll each of possible USB device adapters connected to the network in accordance with a candidate list, and create a master list of only the USB device adapters which respond to the polling (only responding devices will be added to master list)(at least 1136 and 166-172)
- a memory for storing the master list, the master list containing the discrete network address (IP address) of each of said one or more USB device adapters and an identifier identifier (globally unique IDs) of each USB device connected via the corresponding USB device adapter to the remote host control driver (163-64, 69 and 156-172).

While Ben-Dor does not explicitly recite a memory storing the master list, it is necessarily present, and therefore disclosed by Ben-Dor (See Office action of 4/14/06, 15).⁹

Applicants respectfully disagree for the reasons set forth below.

The Applicants gratefully acknowledge indication of allowability of Claims 1-3, 6-10, 12-33, 36-40, 42-43, 45-46, and 48-76 over the cited art of record, subject to the 35 U.S.C. §112 issues outlined in the Office Action.¹⁰ The Applicants respectfully submit the 35 U.S.C. §112 issues outlined in the Office Action have been addressed above, thus Claims 1-3, 6-10, 12-33, 36-40, 42-43, 45-46, and 48-76 are in condition for allowance.

⁹ Office Action at ¶ 11.

¹⁰ Office Action dated September 10, 2007, ¶ 3.

Ben-Dor et al. discloses polling or sending an RPS packet announcement request to an RPS only in special cases where a network host has not received an RPS Announcement packet (RAP) multicast. In Ben-Dor et al., an RPS packet announcement request is not sent if the network host has already received an RPS Announcement packet (RAP) multicast, even though RPS that sent the RAP multicast was a possible USB device adapter. Whereas Claim 1 as presently requires polling each of possible USB device adapters connected to the network in accordance with a candidate list.

Furthermore, Ben-Dor et al. does not disclose compiling a master list of the USB device adapters which responded to the polling as required by presently amended Claim 1. The Examiner's statement presumes that all information in the "master list" of Ben-Dor et al. was obtained as a result of polling all possible RPS's. On the contrary, Ben-Dor et al. discloses polling only in the exceptional case in which the required information has not already been obtained by other means. Thus the master list of Ben-Dor et al. in the typical case would comprise information obtained from RPS's without polling the RPS's. And an exceptional case, the master list of Ben-Dor et al. would comprise both information obtained from some RPS's without polling the RPS's, and information from some other RPS's by polling. In either case, Ben-Dor et al. does not teach compiling a master list of the USB device adapters which responded to the polling as required by presently amended Claim 1. Thus, the 35 U.S.C. § 102 rejection of Claim 1 is unsupported by the art of record.

Independent Claims 31, 43, 45, 46, 55, 58, 61, and 63

With this Amendment, independent claims 31, 43, 45, 46, 55, 58, 61, and 63 have been amended corresponding to the amendments made to Claim 1. Thus, the arguments made above

with respect to Claim 1 apply here as well. Claim 1 being allowable, Claims 31, 43, 45, 46, 55, 58, 61, and 63 must also be allowable.

Dependent Claims 2-3, 32-33, 51, 53, 56-57, 59-60, 62, and 64-76

The base claims being allowable, dependent claims 2-3, 32-33, 51, 53, 56-57, 59-60, 62, and 64-76 must also be allowable for at least the same reasons.

For the above reasons, the 35 U.S.C. § 102 rejection of claims 1-3, 31-33, 43, 46, 51, 53 and 55-64 based on Ben-Dor et al. is not supported by the cited art of record. Thus, a *prima facie* case has not been established and the rejection must be withdrawn.

The First 35 U.S.C. § 103 Rejection

Claims 6-10, 12, 36-40, 42, 45, 48-50, 52 and 54 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ben-Dor et al. in view of Krishnan,¹¹ among which claims 6, 36, 45, and 48 are independent claims.¹² This rejection is respectfully traversed.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.¹³

Claim 6

¹¹ U.S. Patent No. 6,157,950 to Krishnan.

¹² Office Action at ¶ 21.

¹³ M.P.E.P. § 2143.

Claim 6 defines an Internet gateway comprising a port for connecting to the Internet, and a universal serial bus (USB) remote host control driver. The claimed USB remote host control driver includes, among others, a polling routine configured to poll each of possible USB device adapters connected to the local network in accordance with a candidate list, and compile a master list of only the USB device adapters which responded to the polling, as recited in claim 6 as amended.

In the Office Action, the Examiner alleges that the elements of the presently claimed invention are disclosed in Ben-Dor et al., except that Ben-Dor et al. does not teach Internet gateway containing the USB remote host control driver. The Examiner further contends that Krishnan teaches connecting peripheral devices to a local area network and providing an Internet gateway to enable remote access to the peripherals via the Internet and that it would be obvious to one having ordinary skill in the art at the time of the invention to incorporate Krishnan into Ben-Dor et al. in order to enable the USB devices via the Internet. The Applicants respectfully disagree for the reasons set forth below.

As discussed above, Ben-Dor et al. fails to teach or suggest a polling routine configured to poll each of possible device adapters connected to the network in accordance with a candidate list, and compile a master list of the device adapter which responded to the polling, as recited in claim 6, as well as claim 1. Krishnan only allegedly teaches connecting peripheral devices to a local area network and providing an Internet gateway, and thus does not teach or suggest the claimed polling routine. Thus, Ben-Dor et al., whether considered alone or combined with or modified by Krishnan, does not teach or suggest the claimed polling routine.

Claim 36

Claim 36 also includes substantially the same distinctive features as claim 6, and thus the argument set forth above is equally applicable.

Claims 45 and 48

Claims 45 and 48 are means-plus-function claims corresponding to apparatus claims 6 and 36, respectively. Thus, the arguments made with respect to Claims 6 and 36 apply here as well. Claims 6 and 36 being allowable, Claims 45 and 48 must also be allowable.

Dependent Claims 7-10, 12, 37-40, 42, 49-50, 52, and 54

The base claims being allowable, dependent claims 7-10, 12, 37-40, 42, 49-50, 52, and 54 must also be allowable for at least the same reasons.

For the above reasons, the 35 U.S.C. § 103 rejection of claims based on Ben-Dor et al. and Krishnan is not supported by the cited art of record. Thus, a *prima facie* case has not been established and the rejection must be withdrawn.

The Second 35 U.S.C. § 103 Rejection

Claims 11 and 41 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ben-Dor et al. in view of Krishnan in further view of Gottfurcht et al.¹⁴ among which claims no claims are independent claims.¹⁵ This rejection is respectfully traversed.

¹⁴ U.S. Patent No. 6,611,881 to Gottfurcht et al.

¹⁵ Office Action at ¶ 31.

Claim 11 depends from Claim 6. Claim 41 depends from Claim 36. As mentioned above, the 35 U.S.C. § 103 Rejection of Claims 6 and 36 based on Ben-Dor et al. in view of Krishnan is unsupported by the cited art of record because Ben-Dor et al. in view of Krishnan does not teach all claim limitations. Therefore, the 35 U.S.C. § 103 Rejection of dependent claims 11 and 41 based on Ben-Dor et al. in view of Krishnan and further in view of Gottfurcht et al. is also unsupported by the cited art of record.

Accordingly, it is respectfully requested that the rejection of claims based on Ben-Dor et al. and Krishnan and further in view of Gottfurcht et al. be withdrawn. In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

The Third 35 U.S.C. § 103 Rejection

Claims 64-76 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ben-Dor et al. in view of Examiner's Official Notice among which claims no claims are independent claims.¹⁶ This rejection is respectfully traversed.

Claims 69-70 and 71-72

Claims 69-70 depend from Claim 6. Claims 71-72 depend from Claim 36. The Examiner contends the system disclosed by Ben-Dor et al. shows substantial features of the claimed invention, but fails to disclose how the candidate list is configured.¹⁷ However, Claim 6 defines an Internet gateway comprising a port for connecting to the Internet, and a universal serial bus (USB) remote host control driver. And Claim 36 defines an Internet gateway comprising a port for connecting to the Internet, and a serial data bus remote host control driver.

¹⁶ Office Action at ¶ 34.

¹⁷ Office Action at ¶ 34.

As admitted by the Examiner, Ben-Dor et al. fails to disclose an Internet gateway comprising a serial data bus remote host control driver.¹⁸ Thus, the 35 U.S.C. § 103 rejection of Claims 69-70 and 71-72 based on Ben-Dor et al. in view of Official Notice is unsupported by the art referred to in the rejection. For this reason, a *prima facie* case has not been established and the rejection must be withdrawn.

Claims 64-68 and 73-76

Claim 64 depends from Claim 63. Claims 65-66 depend from Claim 1. Claims 67-68 depend from Claim 31. Claims 73-74 depend from Claim 55. Claims 76-76 depend from Claim 58. As mentioned above, the 35 U.S.C. § 102 Rejection of Claims 1, 31, 55, 58, and 63 based on Ben-Dor et al. is unsupported by the cited art of record because every element as set forth in the claims is not found in Ben-Dor et al. Therefore, the 35 U.S.C. § 103 Rejection of dependent claims 64-68 and 73-76 based on Ben-Dor et al. in view of Official Notice is also unsupported by the cited art of record.

Claim 64

Representative Claim 64 as presently amended recites:

The system of claim 63, wherein the said means for polling is further configured to contact each of the device adapters which responded to the polling in accordance with the master list, identify each of the serial data bus devices connected to each device adapter, and store the identifications of the serial data bus devices in the means for storing.

Claim 65

Representative Claim 65 as presently amended recites:

The USB remote host control driver of claim 1 wherein the USB remote host control driver is further configured to configure the candidate list manually.

¹⁸ Office Action at ¶ 22.

The Examiner states:

... while the system disclosed by Ben-Dor shows substantial features of the claimed invention (discussed above), it fails to disclose how the candidate list is configured, only noting that it is a list of devices from which a RPS announcement multicast has not been received. The Examiner takes Official Notice that it was notoriously well known in the art at the time the invention was made to automatically configure lists of network devices using "plug-and-play" type routines as well as manually configure the list of devices via user input. One of ordinary skill in the art would have been aware of these alternatives and would have weighed the benefits of automatic configuration such as speed and convenience with the customization that manual configuration allows. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to permit automatic or manual configuration of the candidate list.¹⁹

The Applicants respectfully disagree. The Examiner admits that Ben-Dor et al. does not teach how the candidate list is configured, but does not provide a specific reference where such a limitation is found, instead taking official notice of facts under M.P.E.P. § 2144.03 that the rationale supporting the obviousness rejection is based on common knowledge in the art or "well-known" prior art. According to the M.P.E.P.,

If the applicant traverses such an assertion the examiner should cite a reference in support of his or her position.²⁰

The Applicants hereby traverse the assertion and requests that a reference be cited in support of the position outlined in the Office Action.

For the above reasons, the rejection is not supported by the cited art of record. Thus, a *prima facie* case has not been established and the rejection must be withdrawn.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

¹⁹ Office Action at ¶ 34.

²⁰ M.P.E.P. § 2144.03.

Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

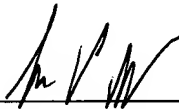
If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

The Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

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